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Integrated Risk Management: Bridging the Gap Between Acquisition and Sustainment

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Overview

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Purpose

The purpose of this briefing is to advocate the policy guidance on integrated risk management, documented in DoD 5000-2R and the Defense Acquisition Deskbook.

Integrated risk management is a process that will bridge the acquiring, using, sustaining, and contractor communities. The reduction of lifecycle costs is a continuing issue for these communities.

This briefing will focus on the influence of risk management throughout the acquisition cycle on the sustainment of the weapon system.

DoD 5000-2R and Defense Acquisition Deskbook

- ★ Integrated Risk Management (IRM) is clearly the only tool we currently have that bridges all phases and acquisition sources during a product's lifecycle.

- ★ Policy and guidance documentation requires or recommends:
  - Tailoring the number of phases and decision points to meet the specific needs of the PM based upon a number of facets - including RISK.
  - Reassessment and briefing the risks to the MDA at every milestone.
  - Formation of a joint Government/contractor risk evaluation team to foster the partnership and ownership of the program and business risks.

DoD 5000-2R Milestones

- ***Milestone 0:*** Approval to enter Phase 0 -- Concept Exploration
- ***Milestone I:*** Approval to begin Phase I -- Program Definition and Risk Reduction
- ***Milestone II:*** Approval to enter Phase II -- Engineering and Manufacturing Development
- ***Milestone III:*** Approval to enter Phase III -- Production, Fielding/Deployment, and Operational Support

- The structure of DoD 5000 is also applicable to non-ACAT programs and should be tailored and adopted as appropriate. Therefore, IRM should be tailored and adopted similarly.

Milestone 0
Approval to Conduct Studies

- ★ Initially, the IRM Team should be comprised of the user, labs, industry, and the acquiring activity.
- ★ The IRM Team must conduct adequate market research to ensure Mission Needs Statements and other requirements definition documents are realistically defined.
- ★ Mission needs must not be risk averse but they must acknowledge the existence of risks and reflect prudent risks in:
  - Need dates.
  - Out year POM submissions.
  - Planned trade study time periods.
  - Planned lab/technology demonstration programs.

Milestone I
Approval to Begin a New Acquisition

- ★ The IRM Team should be expanded including initial input from the sustainment community for:
  - Options for sustainment.
  - Out year DOD sustainment vision.
- ★ Risk must be a part of the definitions of:
  - Program objectives.
  - Opportunities for trade-offs.
  - Overall acquisition strategy.
  - T&E Strategy.
  - Cost, schedule, and performance.
  - Contract structure, terms and conditions, and their impact on business case.
- ★ Initial roadmap and management plan with user concurrence should be in place and approved by MDA.

Milestone II
Approval to Enter EMD

- ★ Sustainment risks for the conceptualized system should be defined and presented to the MDA.
- ★ Business case and risk tradeoffs from an industry perspective should be clearly articulated to the MDA.
- ★ During Phase II, defining tradeoffs in cost and sustainment support capability is critical, including:
  - Level of maintenance.
  - Source of repair options based on the technologies recommended for Phase III.
  - Initial hardware and software sustainment concepts and associated risks.
- ★ Bottom line is: The risk management program should strike a balance between the business case and program risks.

Milestone II
Risk Mitigation Tools for Phase II

- ★ Implement an Independent Verification & Validation (IV&V) of critical contract deliverable documents with contractor support such as:
  - Software.
  - Structural reports.
  - Electrical analyses.
  - Design for maintainability.
  - Tech data.
- ★ Phase II implementation must focus on risks permitting a reduction in the amount of required formal testing.
- ★ These tools should be an integral part of your systems engineering with risk management programs whose outcomes are the responsibility of the program manager.

Milestone II

Risk Mitigation Tools for Phase II *(continued…)*

- The IRM team must focus on maintaining the balance between program risks and business case risks.
- The goal is to ensure that maintaining the balance between program risks and business case risks is addressed by PM and MDA as a program decision.

Milestone III
Approval to Enter Production

- ★ Sustainment impacts are evaluated by cost, schedule, and remaining options available for sustainment.
  - The synopsis of sustainment options should feed into a sustainment roadmap for transitioning from initial CLS to the final sustainment concept for the weapon system.
  - Sustainment roadmap should be written by sustainment IPT.
- ★ Sustainment is the most costly aspect of the life of a program.
  - It is a significant risk to the program if the sustainment philosophy is not matured early enough in the development of the program.
  - Program development decisions in Phase II must consider the risks those decisions are imposing on the sustainment of the weapons system.

Milestone III

Approval to Enter Production *(continued…)*

- ★ The sustainment roadmap is a living document that must be updated to reflect cost, schedule, and technical tradeoffs made pre/post MS III.
- ★ Cost of ownership risks require sustainment impacts of Phase II decisions to be identified and briefed to the MDA.

Contract Type and Structure

- ★ Program risks should be used as the basis for the source selection criteria.
- ★ Risk management approach is dependent upon contract type.
  - FFP – vast majority of risk management is prime contractor responsibility.
  - Other than FFP – There is a sharing of risk between the contractor and the Government.

Contract Type and Structure *(continued…)*

- ★ A longer term structure with options and decentralized ordering covering all phases and sustainment transition is preferred over separate contracts for each phase:
  - Phase II and Phase III.
  - Initial production.
  - Initial spares.
  - CLS and provisioning based upon demands experienced during initial CLS.
  - Depot transition support.
  - Initial DMS support.
- ★ Longer term structure mitigates contractor's business risk and government's management risk.

Risk Management Through Manning

- ★ Benefits of an effective integrated risk management program include:
  - Fewer required personnel.
  - Greater focus on key program elements.
- ★ Cost effective approach to risk management can be achieved through independent contractor reviews of key program submittals and milestone reviews for Phases II and on.
- ★ Continuity of manning should be maintained during the transition from acquisition to sustainment through either:
  - Common contractor support.
  - Earlier commitment of Government sustainment personnel who are ultimately responsible for the sustainment of the system.

AFI 63-107

Integrated Product Support Planning and Assessment

"…reinforces and emphasizes Air Force policy to ensure proper responsibility is vested in a single manager for both acquisition and sustainment planning."

★ Sustainment impacts shall be assessed *throughout* all phases of a program.

★ Contractor/Government sustainment options:

- Contractor TSSR/TSPR.
- Industry/organic mix.
- Full organic - Government.

★ One element of IRM must be *sustainment* with the completion of Milestone II and on.

Program Monitoring and Feedback Results

- ★ Risk Management Plan must be updated at each milestone necessitating reassessment.
- ★ Mechanisms of risk feedback are:
  - Milestone 0 industry involvement.
  - Milestone I sustainment issues identified briefed to MDA.
  - Milestone II and III sustainment issues and mitigation plans reassessed and briefed to MDA.
- ★ Risks and mitigation approaches shall be briefed to the MDA at each milestone decision briefing.

Program Monitoring and Feedback Results *(continued…)*

- Contract should incorporate language to require the contractor to maintain and update the integrated risk management plan.
- The updates to this plan should be briefed at every program review to ensure that the PM is aware of the changes program risks.

Conclusions

- ★ *Remember:* A risk assessment is a single data point. A risk management program requires the continual reassessment of risk and mitigation strategies.

- ★ Effective IRM requires buy-in from both Government and industry who share:
  - Joint responsibility.
  - Joint risk mitigation plan and roadmap.
  - (And understand) equally, the business case risk.

- ★ Integrate roadmaps and risk management plans to encompass the entire acquisition and sustainment lifecycle. Risk management should permeate every phase of our acquisition and sustainment lifecycles.

Conclusions *(continued…)*

- ★ Emphasize IRM as part of enterprise management.
- ★ *We all must be business advisors.* The government program managers are not just paying the bill. They must actively manage the business case in concert with their industry counterparts.

Questions?